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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,202	12/14/2001	Barbara R. Evans	920976.90199	1198

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EXAMINER	
ALEJANDRO, RAYMOND	
ART UNIT	**PAPER NUMBER**
1745	

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/017,202	Applicant(s) EVANS ET AL.	
	Examiner Raymond Alejandro	Art Unit 1745	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 14 April 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The reply was filed after the date of filing a Notice of Appeal, but prior to the date of filing an appeal brief. The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *12-16 and 21-24*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see next page.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____.

RAYMOND ALEJANDRO
PRIMARY EXAMINER

Raymond Alejandro
Primary Examiner
Art Unit: 1745

Response to Arguments

1. Applicant's arguments filed 04/14/05 have been fully considered but they are not persuasive.

2. The main contention of applicant's arguments is premised on the assertion that "*the Declaration directly addresses language recited in pending claim 12*" because "*the text of the Inventor's Declaration describes a chemical deposition method using the oxidation-reduction potentials of the metal salt and the cellulose reducing ends*" (See the amendment dated 04/14/05 at page 5, lines 18-23). It has also been argued that "*in pending independent claim 12, the deposition of metal catalyst particles is from the corresponding metal salt (e.g. hexachloro-palladate) in solution that is infused into the natural cellulose structure; and particle formation is then initiated by reduction of the metal salts (e.g. hexachloropalladate) by reducing ends of the cellulose chains*" (See the amendment dated 04/14/05 at page 4, 3rd full paragraph). For this reason, applicants then stated that in pending independent claim 12, the clause beginning at the middle of line 8 and ending at line 11 reads on such deposition technique and stipulates so, and therefore the broad language of claim 12 only setting forth placing the electrode support structure in a solution of a metal salt is procedurally-methodically equivalent to the specifics of applicant's arguments and the technique described in the Declaration of 12/14/04. Nevertheless, the examiner respectfully disagrees with applicant's characterization of the present claim language. Although the examiner does not question the validity of data presented in applicant's declaration dated 12/14/04 neither applicant's intention to argue that their claimed product-by-process limitation appears to directly refer to a chemical deposition method using the oxidation-reduction potentials of the metal salt and the cellulose reducing ends wherein metal catalyst particles are

from corresponding metal salt such as hexachloropalladate in a solution infused into the natural cellulose structure so as to initiate particle formation by reduction of the metal salts by reducing ends of the cellulose chains, the fact is that pending independent claim 12 does not recite or mention so. Furthermore, the examiner recognizes that applicant is entitled to claim the intended invention as broad as possible; however, on the other hand, the examiner is also entitled to give the current claim language its broadest reasonable interpretation as in this instance.

Moreover, even assuming arguendo that the language of claim 12 reciting "*by placing the electrode support structure in a solution of a metal salt for a sufficient time period such that the metal salt is reduced to metallic form and the metal catalyst precipitates in or on the electrode support structure*" is substantially equivalent to the chemical deposition technique argued by the applicants, a point not conceded by the examiner, it is still contended that metal particles may precipitate from the metal salt solution per se, and thus, they may deposit or epitaxially grow on the surface of the cellulose. Thus, both deposition methods (i.e. the chemical deposition and other convention deposition such as vapor) may occur simultaneously. As a result, unless the present claim language positively excludes the occurrence of other conventional deposition techniques such as entrapping of metal particles in the cellulose matrix or metal particles deposited or epitaxially grown on the cellulose surface, it is asserted that the present claim language still reads on the prior art .

3. In this regard, it is noted that applicants have submitted the foregoing declaration to provide evidence that the claimed product is necessarily different from the prior art's product because the "*relatively slow growth of the metal particles using the method described in the present invention results in high crystallinity of the particles*". Upon careful review of

applicant's declaration, it has been found that the specific method claimed by the applicant is a chemical deposition method that requires temperatures between ambient and 90°C (See item 5 of applicant's declaration). In contrast, applicant further declared that "*Conventional vapor deposition processes as in cited patents uses high temperatures to vaporize metallic metals and deposited them on surfaces in a vacuum chamber*" (See item 5 of applicant's declaration) and argued that "*The methods used by Yoshitake, WO'107 and Westland for the incorporation of metal particles can employ one of two process....(2) metal particles that deposited or epitaxially grown on the surface of the cellulose by vaporization of a metal*" (See the amendment dated 12/14/04 paragraph bridging pages 4-5). In consequence, conventional vapor deposition processes also allow deposition of metal catalyst on the electrode structure comprised of bacterial cellulose. Alternatively, applicant's declaration further distinguishes both methods based on either: a) the chemical deposition using temperatures between ambient and 90°C, or b) the vapor deposition processes using high temperatures. However, the present claim language makes no further distinction as to what specific deposition method is ultimately intended. That is, it simply alludes to any deposition method per se wherein the metal catalyst is disposed in or on the electrode support structure to form metallic by having the metal catalyst precipitated in or on the electrode support structure. Having said that, it is noted that the broadest reasonable interpretation of the claim language still permits the instant claims to read on either the chemical deposition using temperatures between ambient and 90°C and/or the vapor deposition processes using high temperatures. Simply put, the claim language fails to positively set forth the specific deposition method, and therefore, the present claim language is not commensurate in scope of with the arguments presented in applicant's declaration. Therefore, applicant's declaration

stating that the claimed product is necessarily different from the prior art's product is not appropriate and applicable. In this respect, the examiner likes to note that the validity of applicant's declaration and/or applicant's expertise/technical proficiency is in no way being disputed or challenged. The examiner acknowledges the competence of the declarant.

4. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a) "*vapor deposition methods do not provide for effective deposition of metal in the internal pores of the electrode as in the present invention*"; b) "*the claimed invention allows for infusion of the metal salt into the pores of the cellulose*") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

5. All over again, it is noted that the present claims are still being construed as product-by-process claims. Thus, although applicants are entitled to define a product by using process/method limitations, what is given patentably consideration is the product itself (i.e. the electrode support structure per se) and not the manner in which the product was made. In this case, the prior art teaches the electrode support structures having disposed thereon a metal catalyst material. In consequence, the references are teaching substantially the same product and constituents as the product made by the method of the instant claims. Therefore, the patentability of a product is independent of how it was made. However, there may be situations when the manner in which a product was made should be given consideration. Thus, burden is on applicants to show differences in product-by-process claims as well as in product comparisons. Further, even though the prior are may fail to disclose other physical properties, in view of the

substantially similar products being disclosed in the instant application, the examiner has a reasonable basis to suspect that the claimed product and the combined prior art product (i.e. the electrode support structure per se) would be substantially the same. Since PTO does not have proper equipment to carry out the analytical tests, the burden is then shifted to applicants to provide objective evidence demonstrating the claimed product is necessarily different from the prior art's product, and that the difference is unobvious ***(Refer to MPEP 2113: Product-by-Process Claims)***.

RAYMOND ALEJANDRO
PRIMARY EXAMINER